Serial#: 10/520,078 STRUCTURE SEARCH

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 11:58:56 ON 30 JUN 2009
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FILE COVERS 1907 - 30 Jun 2009 VOL 151 ISS 1
FILE LAST UPDATED: 29 Jun 2009 (20090629/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2009.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

=> D STAT QUE L12 L3 STR

0 17 S 18

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Page 1-A
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Page 1-B



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Page 2-A
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              AT 8
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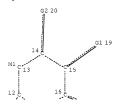
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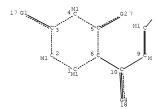
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Page 1-A



Page 1-B



Page 2-A



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Page 2-B VAR G1=22/23/24/25/26

Page 4 of 56

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NUMBER OF NODES IS 33
STEREO ATTRIBUTES: NONE
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VAR G2=27/28/29/30 VAR G4=31/32/33 NODE ATTRIBUTES:

HCOUNT IS M1

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AT 1

AT 2

AT 4

^{=&}gt; D L12 IBIB ABS HITSTR 1-5

L12 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN

2009:258682 HCAPLUS Full-text ACCESSION NUMBER:

DOCUMENT NUMBER: 150:306643

TITLE: Preparation of diphenylheteroaryl and chalcone

derivatives as PPAR agonists

INVENTOR(S): Hibbs, David Edward; Salam, Noeris Kris; Roubin, Rebecca; Matin, Azadeh; Gavande, Navnath S.

PATENT ASSIGNEE(S): The University of Sydney, Australia

SOURCE: PCT Int. Appl., 67pp.

CODEN: PIXXD2 DOCUMENT TYPE:

Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PAT	ENT :	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		D.	ATE	
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WO	2009	0266	58		A1		2009	0305		WO 2	008-	AU12	92		2	0080	829
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		CA,	CH,	CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,
		FI,	GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,
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		PL,	PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	ST,	SV,	SY,	TJ,
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		IE,	IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	NO,	PL,	PT,	RO,	SE,	SI,	SK,
		TR.	BF.	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GO,	GW,	ML,	MR,	NE,	SN,	TD,
		TG.	BW.	GH.	GM,	KE.	LS.	MW.	MZ.	NA.	SD.	SL.	SZ.	TZ.	UG,	ZM.	ZW.
		AM.	AZ.	BY.	KG.	KZ.	MD.	RU,	TJ.	TM							
PRIORITY	AM, AZ, B RITY APPLN. INFO.:									AU 2	007-	9046	74		A 2	0070	829
OTHER SO	URCE	(S):			MAR	PAT	150:	3066	43								

- AB Title compds. I [A = heteroaryl ring (optionally substituted with halo, alkyl, haloalkyl, etc.); R1-R10 = H, hydroxy, halo, etc.; or their pharmaceutically acceptable salts] and II [L = alkylene or alkenylene; R11-R15 = H, hydroxyl, halo, etc.; R16-R20 = H, hydroxyl, halo, etc.; or their pharmaceutically acceptable salts] were prepared For example, reaction of resorcinol with 4-fluorophenylacetic acid in BF3.OEt2 followed by cyclocondensation with acetic anhydride and treatment with NH2NH2·H2O afforded compound III, which showed PPAR-γ fold activation activity (5.3 at 25 µM) compared to rosiglitazone (4 at 25 µM). Compds. I and II are claimed useful for the treatment of type II diabetes, obesity, etc.
- 961-29-5P 220430-82-0P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of diphenylheteroaryl and chalcone derivs. as PPAR agonists for treatment of type II diabates, obasity, etc.)

961-29-5 HCAPLUS

CN 2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

RN 220430-82-0 HCAPLUS

CN 2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(3-methoxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

REFERENCE COUNT:

THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:1470011 HCAPLUS Full-text

11

DOCUMENT NUMBER: 148:100385

TITLE: Preparation of 1.3-diphenvlpropane derivatives,

particularly 2-[4-(3-oxo-3-phenylpropyl)phenoxy]-2-

methylpropanoic acids and related derivatives, as PPAR agonists for treating diseases especially dyslipidemia

INVENTOR(S): Delhomel, Jean-Francois; Hanf, Remy; Caumont-Bertrand, Karine

PATENT ASSIGNEE(S): Genfit, Fr.

SOURCE: PCT Int. Appl., 108pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PAT	TENT				KIN	D	DATE			APPL					D	ATE	
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		AL,	BA,	HR,	MK,	RS											
IN	2009	MNOO	149		A		2009	0515		IN	2009-	MN14	9		2	0090	119
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									1	ΝO	2007-	EP56	224	1	W 2	0070	621
OFFITTE OF	OTTO OT	101			142 DE	- m	1.40	1000	O.E.								

OTHER SOURCE(S): MARPAT 148:100385

AB Title compds. I [X1 = R1, GlR1; X2 = halo, R2, G2R2; X3 = R3, G3R3; X4 = halo, R4, G4R4; X5 = R5, G5R5; R1 = H, nonhalogenated alkyl; R2 = H, alkyl; R3-R5 = independently H. (un)substituted alkyl; G1-G5 = independently O. S; with at least one of X3-X5 = R3, G3R3, R4, G4R4, R5, G5R5 in which G3-G5 = defined as above and R3-R5 = independently alkyl substituted with 1-2 substituents selected from CO2H and derivs., CONH2 and derivs., SO3H, SO2NH2 and derivs.; A = CR6R7, CO, C:N-OH, C:N-OR8; R6, R7 = independently H, OH, OR8, alkyl; R8 = independently alkyl substituted with an aryl or cycloalkyl group; D = CH2, CHY; Y = O- or S-heterocycle; with the exclusion of compds. I in which A = CH2 and at least 3 of X1-X5 = H; and their stereoisomers, racemates, geometrical isomers, tautomers, salts, hydrates, solvates, solid forms and their mixts.] were prepared as PPAR activators, especially agonists, for treating dyslipidemia, diabetes type II and related diseases. Thus, reduction of 2-[2,6-dimethyl-4-[3-[4-(methylthio)phenyl]-3-oxoprop-1-enyl]phenoxy]-2methylpropanoic acid with triethylsilane in TFA at room temperature gave acid II (m.p. = $109-110^{\circ}$). Selected I were hPPAR α , hPPAR γ , and/or hPPA δ activators in an induced luciferase activity via hPPARa/Gal4, hPPARy/Gal4, and hPPARô/Gal4 transactivation assay. I displayed hypolipemic properties by lowering the plasmatic cholesterol and triglycerides rates. I are useful for treating diabetes type II, dyslipidemia, pathologies associated with metabolic syndrome, cardiovascular diseases, etc.

IT 1000335-14-7, 2-[3-[4-(Methylthio)phenyl]-3-oxoprop-1-

enyl]phenoxy]-2-methylpropanoic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 1,3-diphenylpropane derivs. as PPAR activators for treating diseases especially dyslipidemia)

RN 1000335-14-7 HCAPLUS

N Propanoic acid, 2-methyl-2-[3-[3-[4-(methylthio)phenyl]-3-oxo-1-propen-1-yl]phenoxy]- (CA INDEX NAME)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:1470010 HCAPLUS Full-text

DOCUMENT NUMBER: 148:100384

TITLE: Preparation of 1,3-diphenylpropane derivatives,

particularly 2-[4-(3-oxo-3-phenylpropyl)phenoxy]-2methylpropanoic acids and related derivatives, as PPAR agonists for treating disease especially dyslipidemia

INVENTOR(S): Delhomel, Jean-Francois; Hanf, Remy; Caumont-Bertrand, Karine

PATENT ASSIGNEE(S): Genfit, Fr.

SOURCE: PCT Int. Appl., 97pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 2 PATENT INFORMATION:

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WO 20071	47880		A1		2007	1227							2	0070	621
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	IS, IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,
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	GH, GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,
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FR 29027	89		A1		2007	1228		FR 2	006-	5540			2	0060	621
AU 20072	62939		A1		2007	1227		AU 2	007-	2629	39		2	0070	621
CA 26557	44		A1		2007	1227		CA 2	007-	2655	744		2	0070	621
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KR 20090.	59105		A		2009	0610		KR 2	009-	7013	18		2	0090	121
PRIORITY APPLI	N. INFO	. :						FR 2	006-	5540			A 2	0060	621
								WO 2	007-	EP56	225	1	W 2	0070	621
OTHER SOURCE (S):		MAR	PAT	148:	1003	34								

Title compds. I [X1 = halo, R1, G1R1; X2 = halo, R2, G2R2; X3 = R3, G3R3; X4 = halo, R4, G4R4; X5 = R5, G5R5; R1 = haloalkv1; R2 = H, alkv1; R3-R5 = independently H, (un) substituted alkyl; G1-G5 = independently O, S; with at least one of X3-X5 = R3, G3R3, R4, G4R4, R5, G5R5 in which G3-G5 = defined as above and R3-R5 = independently alkyl substituted with 1-2 substituents selected from CO2H and derivs., CONH2 and derivs., SO3H, SO2NH2 and derivs.; A = CR6R7, CO, C:N-OH, C:N-OR8; R6 = H, alkyl, OR8; R7 = alkyl, OH, OR8; R8 = independently alkyl substituted with an aryl or cycloalkyl group; D = CH2, CHY; Y = O- or S-heterocycle; and their stereoisomers, racemates, geometrical isomers, tautomers, salts, hydrates, solvates, solid forms and their mixts.] were prepared as PPAR activators, especially agonists, for treating dyslipidemia, diabetes type II and related diseases. Thus, reduction of 2-[2,6-dimethyl-4-[3-[4-(trifluoromethylthio)phenyl]-3-oxoprop-1-enyl]phenoxy]-2methylpropanoic acid with triethylsilane in DCM in the presence of TFA at room temperature gave the acid II (m.p. = 83-85°). Selected I were hPPARa, hPPARy, and/or hPPAS activators in an induced luciferase activity via hPPARa/Gal4, hPPARy/Gal4, and hPPAR δ /Gal4 transactivation assay. I displayed hypolipemic properties by lowering the plasmatic cholesterol and triglycerides rates. I are useful for treating diabetes type II, dyslipidemia, pathologies associated with metabolic syndrome, cardiovascular diseases, etc.

IIT 1000336-61-7, 2-[[4-[3-(4-Chloro-2-hydroxyphenyl)-3-oxoprop-1enyl]phenyl]thio]-2-methylpropanoic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 1,3-diphenylpropane derivs. as PPAR activators for treating diseases especially dyslipidemia)

RN 1000336-61-7 HCAPLUS

CN Propanoic acid, 2-[[4-[3-(4-chloro-2-hydroxypheny1)-3-oxo-1-propen-1y1]pheny1]thio]-2-methyl- (CA INDEX NAME)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2006:1174214 HCAPLUS Full-text

DOCUMENT NUMBER:

 $145\!:\!483778$ Chalcones as farnesoid x receptor activators and TITLE:

health foods

INVENTOR(S): Nozawa, Hajime PATENT ASSIGNEE(S):

Kirin Brewery Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 21pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006306800	A	20061109	JP 2005-132695	20050428
PRIORITY APPLN. INFO.:			JP 2005-132695	20050428

OTHER SOURCE(S): MARPAT 145:483778

Chalcones, including xanthohumol from hop exts., are claimed as farnesoid x receptor (FXR) activators, adiponectin enhancers, and health foods for treatment of FXRrelated diseases, including lipid metabolic diseases, diabetes, obesity, choledocholithiasis, fatty liver, hyperlipidemia, atherosclerosis, and other

cardiovascular diseases, etc. The pharmacol. of xanthohumol were tested in animals. TТ 94-41-70, Chalcone, derivs.

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(chalcones as farnesoid x receptor activators and health foods)

RM 94-41-7 HCAPLUS

2-Propen-1-one, 1,3-diphenvl- (CA INDEX NAME) CN

L12 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:19750 HCAPLUS Full-text

DOCUMENT NUMBER: 140:76896

TITLE: Composition based on substituted

1,3-diphenylprop-en-1-one derivatives, preparation and

use as PPARa agonists, antioxidants as well as

antiinflammatory agents

INVENTOR(S): Najib, Jamila; Caumont Bertrand, Karine PATENT ASSIGNEE(S):

Genfit S.A., Fr.

SOURCE: Fr. Demande, 66 pp.

CODEN: FRXXBL DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO. FR 2841784 A1 20040109 FR 2002-8570 20020708 FR 2841784 B1 20070302 A1 20040115 CA 2003-2490993 CA 2490993 20030708 WO 2004005243 A2 20040115 WO 2003-FR2128 20030708 WO 2004005243 A3 20040422

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
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             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
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                        A1 20050804 US 2005-520078
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FR 2002-8570 A 20020708
WO 2003-FR2128 W 20030708
PRIORITY APPLN. INFO.:
OTHER SOURCE(S):
                   MARPAT 140:76896
GI
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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein X1 = halo, R1, G1R1; X2 = H, thionitroso, OH, alkylcarbonyloxy, alkyloxy, SH, alkylthio, alkylcarbonylthio or X2 = 0 or S that forms a 2-phenyl-4H-1-benzopyran-4-one with the carbon-3 of the propene chain; X3 = R3, G3R3; X4 = halo, thionitroso, R4, G4R4; X5 = R5, G5R5; X6 = O, NH and derivs.; R1, R3, R4, R5 = independently H, (un)substituted alkyl; G1, G3, G4, G5 = independently O or S; with at least one of X1, X3, X4, or X5 of formula GR and one of the R1, R3, R4, or R5 is a substituted radical, and that radical form a cycle, or is associated with a group G; their optical and geometrical isomers, racemates, tautomers, salts, hydrates and mixts.; with the exclusion of certain compds.] were prepared as peroxisome proliferator-activated receptors- α (PPAR α) agonists and as antioxidants for treating cerebral ischemia and related diseases. For example, II was prepared by mixed-Aldol condensation of ketone III with 4-hydroxy-3,5ditertbutylbenzaldehyde in the presence of ethanol/HCl. In an antioxidant test, selected I (10-3 M) diminished the formation of oxidation product of LDL by AAPH by 33%. Selected I were PPARa agonists, showing induced luciferase activity via $PPAR\alpha/Gal4$ transactivation with a factor of induction ranging from 10 to 60, 5-50 and 3-35 at 100 μM , 30 μM , and 10 μM resp. I and their compns. are useful for treating cardiovascular diseases, syndrome X, restenosis, diabetes, obesity, hypertension, inflammatory diseases, cancers or neoplasms (benign or malignant tumors), neurodegenerative diseases, dermatol. and the disorders related to the oxydative stress, for preventing and treating aging, and in particular cutaneous aging.

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IT 639964-16-7P 639864-17-8P 639864-18-9P 639864-19-0P 639864-29-3P 639864-21-4P 639864-22-5P 639864-23-6P 639864-30-5P
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639864-31-6P 639864-38-3P 639864-39-4P

639864-40-7P 639864-41-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

 $(\mbox{PPAR}\alpha \mbox{ agonist; preparation of diphenylpropenones as PPAR agonists for treating ischemia)}$

RN 639864-16-7 HCAPLUS

CN Propanoic acid, 2-[3-(1,1-dimethylethyl)-2-hydroxy-5-[3-(2-hydroxyphenyl)-3-oxo-1-propen-1-yl]phenoxy]-2-methyl- (CA INDEX NAME)

RN 639864-17-8 HCAPLUS

CN Propanoic acid, 2-[3-(1,1-dimethylethyl)-2-hydroxy-5-[3-(2-hydroxyphenyl)-3-oxo-1-propen-1-yl]phenoxy]-2-methyl-, 1-methylethyl ester (CA INDEX NAME)

RN 639864-18-9 HCAPLUS

CN Propanoic acid, 2-[5-[3-(4-chloro-2-hydroxypheny1)-3-oxo-1-propen-1-y1]-3- (1,1-dimethylethy1)-2-hydroxyphenoxy]-2-methyl- (CA INDEX NAME)

RN 639864-19-0 HCAPLUS

CN Propanoic acid, 2-[5-[3-(4-chloro-2-hydroxypheny1)-3-oxo-1-propen-1-y1]-3-(1,1-dimethylethyl)-2-hydroxyphenoxy]-2-methyl-, 1-methylethyl ester (CA INDEX NAME)

$$\begin{array}{c} OH \\ CI \\ \end{array} \begin{array}{c} OH \\ CH \\ \end{array} \begin{array}{c} OH \\ OH \\ \end{array} \begin{array}{c} OH \\ OH \\ \end{array} \begin{array}{c} OH \\ OH \\ \end{array}$$

- RN 639864-20-3 HCAPLUS
- CN Benzeneacetic acid, 3-(1,1-dimethylethyl)-2-hydroxy-5-[3-(2-hydroxyphenyl)-3-oxo-1-propen-1-yl]-α,α-dimethyl- (CA INDEX NAME)

- RN 639864-21-4 HCAPLUS
- CN Benzeneacetic acid, $3-(1,1-\text{dimethylethyl})-2-\text{hydroxy-}5-[3-(2-\text{hydroxyphenyl})-3-\text{oxo-}1-\text{propen-}1-yl]-\alpha,\alpha-\text{dimethyl-}, 1-\text{methylethyl} ester (CA INDEX NAME)$

- RN 639864-22-5 HCAPLUS
- CN Benzeneacetic acid, 5-[3-(4-chloro-2-hydroxyphenyl)-3-oxo-1-propen-1-yl]-3- (1,1-dimethylethyl)-2-hydroxy- α , α -dimethyl- (CA INDEX NAME)

Page 14 of 56

- RN 639864-23-6 HCAPLUS
- CN Benzeneacetic acid, 5-[3-(4-chloro-2-hydroxypheny1)-3-oxo-1-propen-1-y1]-3-(1,1-dimethylethyl)-2-hydroxy-α,α-dimethyl-, 1-methylethyl ester (CA INDEX NAME)

$$\begin{array}{c} \text{OH} \\ \text{Cl} \\ \text{CH} \\ \text{CH} \\ \text{OH} \\$$

- RN 639864-30-5 HCAPLUS
- CN Propanoic acid, 2-[5-[3-(4-chloro-2-hydroxypheny1)-3-oxo-1-propen-1-y1]-2,3-dihydroxyphenoxy]-2-methyl- (CA INDEX NAME)

- RN 639864-31-6 HCAPLUS
- CN Propanoic acid, 2-[5-[3-(4-chloro-2-hydroxyphenyl)-3-oxo-1-propen-1-yl]-2,3-dihydroxyphenoxy]-2-methyl-, 1-methylethyl ester (CA INDEX NAME)

$$\begin{array}{c} \text{C1} & \begin{array}{c} \text{O} \\ \text{H} \end{array} \\ \text{O} \\ \text{I-Pro-C-C-O} \\ \end{array}$$

- RN 639864-38-3 HCAPLUS
- CN Propanoic acid, 2-[3-[3-(2-hydroxyphenyl)-3-oxo-1-propen-1-yl]phenoxy]-2methyl- (CA INDEX NAME)

- RN 639864-39-4 HCAPLUS
- CN Propanoic acid, 2-[3-[3-(2-hydroxypheny1)-3-oxo-1-propen-1-y1]phenoxy]-2-methyl-, 1-methylethyl ester (CA INDEX NAME)

- RN 639864-40-7 HCAPLUS
- CN Propanoic acid, 2-[[4-[3-(2-hydroxyphenyl)-3-oxo-1-propen-1-yl]phenyl]thio]-2-methyl- (CA INDEX NAME)

- RN 639864-41-8 HCAPLUS
- CN Propanoic acid, 2-[[4-[3-(2-hydroxyphenyl)-3-oxo-1-propen-1yl]phenyl]thio]-2-methyl-, 1-methylethyl ester (CA INDEX NAME)

- REFERENCE COUNT:
- 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> => FILE HCAPLUS

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FILE COVERS 1907 - 30 Jun 2009 VOL 151 ISS 1 FILE LAST UPDATED: 29 Jun 2009 (20090629/ED) REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2009 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the second guarter of 2009.

CAS Information Use Policies apply and are available at:

http://www.cas.org/legal/infopolicy.html

This file contains CAS Registry Numbers for easy and accurate substance identification.

'OBI' IS DEFAULT SEARCH FIELD FOR 'HCAPLUS' FILE

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L18 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2006:491764 HCAPLUS Full-text

DOCUMENT NUMBER: 145:1047

TITLE: Methods and compositions using sirtuin modulators for treating or preventing obesity and insulin resistance

disorders

INVENTOR(S): Sinclair, David A.; Alexander-Bridges, Maria
PATENT ASSIGNEE(S): President and Fellows of Harvard College, USA; The

General Hospital Corporation

SOURCE: U.S. Pat. Appl. Publ., 154 pp., Cont.-in-part of U.S.

Ser. No. 27,779. CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2 PATENT INFORMATION:

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- AB The invention provides methods and compns. for modulating the activity or level of a sirtuin, thereby treating or preventing obesity or an insulin resistance disorder, e.g. diabetes, in a subject. Exemplary methods comprise contacting a cell with a sirtuin activating compound or an inhibitory compound to thereby increase or decrease fat accumulation, resp.
- IT 94-41-7, Chalcone 961-29-5, Isoliquiritigenin 13745-20-5, 4,2',4'-Trihydroxychalcone
 - RL: PAC (Pharmacological activity); BIOL (Biological study)
 (sirtuin modulators for treatment or prevention of obesity
 - and insulin resistance disorders)
- RN 94-41-7 HCAPLUS
- CN 2-Propen-1-one, 1,3-diphenyl- (CA INDEX NAME)

PR

RN 961-29-5 HCAPLUS

CN 2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

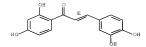
Double bond geometry as shown.

- RN 13745-20-5 HCAPLUS
- CN 2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(4-hydroxyphenyl)- (CA INDEX NAME)

- IT 94-41-70, Chalcone, derivs. 487-52-5, Butein
 - RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 - (Biological study); USES (Uses)
 (sirtuin modulators for treatment or prevention of obesity
 - and insulin resistance disorders)
- RN 94-41-7 HCAPLUS
- CN 2-Propen-1-one, 1,3-diphenyl- (CA INDEX NAME)

- RN 487-52-5 HCAPLUS
- CN 2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(3,4-dihydroxyphenyl)-, (2E)-(CA INDEX NAME)

Double bond geometry as shown.



L18 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:638724 HCAPLUS Full-text

DOCUMENT NUMBER: 143:126796

TITLE: Compositions using sirtuin modulators for treating or preventing obesity and insulin resistance disorders

INVENTOR(S): Sinclair, David A.; Alexander-Bridges, Maria

PATENT ASSIGNEE(S): President and Fellows of Harvard College, USA; The

General Hospital Corporation SOURCE: PCT Int. Appl., 110 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

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			BA,	HR,	IS,	YU													
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AB Methods and compns. are provided for modulating the activity or level of a sirtuin, thereby treating or preventing obesity or an insulin resistance disorder, e.g. diabetes, in a subject. Exemplary methods comprise contacting a cell with a sirtuin activating compound or an inhibitory compound to thereby increase or decrease fat accumulation, resp.

IT 487-52-5, Butein

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

F

(sirtuin modulators for treatment or prevention of obesity and insulin resistance disorders)

RN 487-52-5 HCAPLUS

2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(3,4-dihydroxyphenyl)-, (2E)-CN (CA INDEX NAME)

Double bond geometry as shown.

L18 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2005:409480 HCAPLUS Full-text

DOCUMENT NUMBER: 142:463610

TITLE: Preparation of pyridines as inhibitors of dipeptidyl peptidase IV useful for the prophylaxis or treatment

of diabetes

INVENTOR(S): Oi, Satoru; Maezaki, Hironobu; Suzuki, Nobuhiro PATENT ASSIGNEE(S): Takeda Pharmaceutical Company Limited, Japan

SOURCE: PCT Int. Appl., 431 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Patent

LANGUAGE:

English FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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Serial	#:	10	/520	078
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			JP	2004-165977	A	20040603
			WO	2004-JP16457	W	20041029
			KR	2006-708423	A3	20060429
OTHER SOURCE(S):	CASREA	CT 142:46361	0; 1	MARPAT 142:463610		

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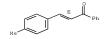
- AB Title compds. I [wherein R1, R2 = independently (un)substituted hydrocarbyl, hydroxy; R3 = (un)substituted aryl; R4 = NH2 and derivs.; L = divalent hydrocarbon chain; Q = a bond or a divalent hydrocarbon chain; X = H, CN, NO2, acyl, OH and derivs., SH and derivs., NH2 and derivs., (un)substituted cyclyl; provided that when X = -C(10)OEt, then Q = divalent hydrocarbon chain and that certain compds. are absent; and their salts, prodrugs] were prepared as dipeptidyl peptidase IV inhibitors. For example, Boc-protection of Me 5-(aminomethyl)-6-isobutyl-2-methyl-4-(4-methylphenyl)nicotinate (preparation given), saponification, coupling of the acid with isobutylamine/deprotection gave II•2TFA. I show a superior dipeptidyl peptidase IV inhibitory activity, and are useful as agents for the prophylaxis or treatment of diabetes and related diseases.
- IT 22252-14-8P, (2E)-3-(4-Methylphenyl)-1-phenylprop-2-en-1-one
 RI: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(intermediate; preparation of pyridines as inhibitors of dipeptidyl peptidase IV useful for prophylaxis or treatment of diabetes)

RN 22252-14-8 HCAPLUS

CN 2-Propen-1-one, 3-(4-methylphenyl)-1-phenyl-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:993141 HCAPLUS Full-text

DOCUMENT NUMBER: 141:388723

TITLE: Flavonoid glycosides with enzymic modification for

prevention and treatment of type-II diabetes
INVENTOR(S): Tamura, Wataru; Matsuyama, Kayo; Kagami, Yoshiaki

PATENT ASSIGNEE(S): Ezaki Glico Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004323469	A	20041118	JP 2003-123434	20030428 <
PRIORITY APPLN. INFO.:			JP 2003-123434	20030428 <

AB Flavonoid glycosides, including flavane, flavanone, flavanol, flavone, isoflavone, and chalcone, with enzymic modification on their sugar chain are claimed as drugs and health foods for prevention and treatment of type-II diabetes.

IT 94-41-7, Chalcone

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(flavonoid glycosides with enzymic modification for prevention and treatment of type-II diabetes)

RN 94-41-7 HCAPLUS

CN 2-Propen-1-one, 1,3-diphenyl- (CA INDEX NAME)

L18 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:902361 HCAPLUS Full-text

DOCUMENT NUMBER: 141:395802

TITLE: Preparation of substituted phenylalkanoic acids,

including amino acid derivatives

INVENTOR(S): Van Zandt, Michael C.; Fang, Haiguan; Hu, Shaojing;

Whitehouse, Darren

PATENT ASSIGNEE(S): The Institutes for Pharmaceutical Discovery, LLC, USA

SOURCE: PCT Int. Appl., 131 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

Page 23 of 56

LANGUAGE:

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

English

PA.	TENT	NO.			KIN		DATE				ICAT					ATE		
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OTHER SO	OURCE	(S):			MARI	PAT	141:	3958										

OTHER SOURCE(S): MARPAT 141:395802

AB The invention relates to compds. I [n is 0-3; Rl is H, alkyl, phenylalkyl or alkenyl; R2 is Ph, phenylalkyl, alkyl, carbamoylalkyl, alkylsulfonylalkyl, heterocycloalkyl, etc.; R3 is H or COZRI, R20-R23 are independently H, arylalkoxy, arylalkyl, halo, alkyl, OH, alkoxy, NO2, NH2, alkylamino, etc.; L is SOZNH, sulfonyl(alkylimino), NHSO2, O, CONH, carbonyl(alkylimino), SO2, carbonylalkylene, alkylenecarbonyl, NH or alkylimino (the alkyl group are optionally substituted with Ph or substituted phenyl); L2 is a bond, CONR9, NR9CO, alkylene-CONR9, NR9, etc. (R9 is H or alkyl optionally substituted with COZH, arylsulfonyl or arylalkyl); ring A is (un) substituted Ph, nphthyl, thiazolyl, pyrazolyl, furanyl, dihydropyrazolyl,

benzofuranyl, dibenzofuranyl, pyrimidyl, pyridyl, quinolinyl, naphthyl, quinazolinyl, benzolbithiophene, imidazolyl, isothiazolyl, pyrrolyl, oxazolyl or triazolyl; 0 is H, aryl, arylcarbonylaryl, alkyl, halo, etc.; L3 is a bond, alkyleneoxy, oxyalkylene, alkylene, alkenylene or CO; Z is absent, H, aroylemino, (un) substituted Ph or cycloalkylcycloalkanoyl(alkyl)amino] and their pharmaceutically-acceptable salts, which are useful in the treatment of metabolic disorders related to insulin resistance or hyperglycemia. These compds. include inhibitors of protein tyrosine phosphatase (PTF-1B) that are useful in the treatment of diabetes and other PTF-1B mediated diseases such as cancer and neurodegenerative diseases. Thus, 2-14-4-4-4-chlorophenyl)-5-(4-ethylphenyl)thiazol-2-ylcarbamoyl]benzenesulfonylamino]-3-phenylpropionic acid was prepared by cyclocondensation of 4-CLCSH4CCH2CSH4EF-4 (preparation given) with thiourea, acylation with 4-C1S02CSH4CO2R, and coupling with phenylalanine tert-Bu ester hydrochloride. The product was shown to increase the glucose infusion rate in rats at 30 mg/kg.

IT 702463-60-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent) (preparation of substituted phenylalkanoic acids, including amino acid derivs., for treatment of diabetes)

RN 782483-60-7 HCAPLUS

CN 2-Propen-1-one, 1-(4-chlorophenyl)-3-(4-ethylphenyl)- (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2003:896295 HCAPLUS Full-text

DOCUMENT NUMBER: 140:192745

TITLE: A licorice ethanolic extract with peroxisome

proliferator-activated receptor-γ ligand-binding activity affects diabetes in KK-Ay mice, abdominal

obesity in diet-induced obese C57BL mice and hypertension in spontaneously hypertensive rats Mae, Tatsumasa; Kishida, Hidevuki; Nishivama, Tozo;

Tsukagawa, Misuzu; Konishi, Eisaku; Kuroda, Minpei; Mimaki, Yoshihiro; Sashida, Yutaka; Takahashi, Kazuma;

Kawada, Teruo; Nakagawa, Kaku; Kitahara, Mikio

Functional Foods Development Division, Life Science RD

Center, Kaneka Corporation, Hyogo, 676-8688, Japan

Journal of Nutrition (2003), 133(11),

3369-3377

3309-3377

CODEN: JONUAI; ISSN: 0022-3166

PUBLISHER: American Society for Nutritional Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

3 The metabolic syndrome, including type 2 diabetes, insulin resistance, obesity/abdominal obesity, hypertension and dyslipidemia, is a major public health problem. Peroxisome proliferator—activated receptor—y (PPAR—y) ligands such as thiazolidinediones are effective against this syndrome. In this study, we showed that nonaq, fractions of licorice (Glycyrrhiza uralensis Fisher) extracted with ethanol, Et acetate and acetone, but not an aqueous extract, had PPAR—y ligand—

AUTHOR(S):

SOURCE:

CORPORATE SOURCE:

binding activity with a GAL4-PPAR-7 chimera assay. Some prenylflavonoids including glycycoumarin, glycyrin, dehydroglyasperin C and dehydroglyasperin D, a newly found compound, were identified as active compds. with PPAR-y ligand-binding activity in the nonag, fraction of licorice. A licorice ethanolic extract contained these four active compds. at a total concentration of 16.7 q/100 q extract Feeding the licorice ethanolic extract at 0.1-0.3 g/100 g diet [.apprx.100 to 300 mg/(kg body·d)] for 4 wk decreased (P < 0.05) blood glucose level in younger (6 wk old) and older (13 wk old) diabetic KK-Ay mice and reduced (P < 0.05) wts. of intra-abdominal adipose tissues in high fat diet-induced obese C57BL mice. An increase in blood pressure in spontaneously hypertensive rats was suppressed (P < 0.01) by 3 wk of oral administration of the licorice ethanolic extract at 300 mg/(kg body d). These findings indicate that licorice ethanolic extract is effective in preventing and ameliorating diabetes, ameliorating abdominal obesity and preventing hypertension, and suggest that licorice ethanolic extract would be effective in preventing and/or ameliorating the metabolic syndrome.

961-39-5, Isoliquiritigenin

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses) (licorice ethanolic extract with PPAR-y ligand-binding activity

affects diabetes in KK-Ay mice, abdominal obesity in diet-induced obese C57BL mice and hypertension in

spontaneously hypertensive rats)

RN 961-29-5 HCAPLUS

2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(4-hydroxyphenyl)-, (2E)- (CA CN INDEX NAME)

Double bond geometry as shown.

REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2002:487337 HCAPLUS Full-text

DOCUMENT NUMBER: 137:68154

TITLE: Method and composition for the treatment of diabetic

neuropathy

Rosenbloom, Richard A. INVENTOR(S): PATENT ASSIGNEE(S): The Quigley Corporation, USA

SOURCE: PCT Int. Appl., 31 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002049575		20020627	WO 2001-US49297	20011219 <
WO 2002049575		20030724		
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CO, CR,	CU. CZ. DE.	DK. DM. DZ	. EC. EE. ES. FI. GB.	GD, GE, GH,

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     CA 2470603
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     WO 2003053336
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                          A3
                                20031127
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             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
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                                            EP 2002-789474
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     JP 2005518381
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     NZ 533439
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    A 20060030 NZ 2002-533439

LUS 20030138504 A1 20030724 US 2003-659025

ZA 2003004247 A 20040602 ZA 2003-4247

IN 2003000672 A 20070302 IN 2003-DN870

MX 2003005672 A 20041203 MX 2003-5672

ZA 2004004614 A 20050829 ZA 2004-4614

IN 2004001683 A 20070511 IN 2004-DN1683

MX 2004006039 A 20040927 MX 2004-6039

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                                              US 2001-847121
                                                                  A 20010502 <--
                                              WO 2001-US49297
                                                                  W 20011219 <--
                                              WO 2002-US35654 W 20021106 <--
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AB A composition for the treatment of diabetic neuropathy comprise a mixture of a compound that promotes synthesis of nerve growth factor, an aldose reductase inhibitor and an antioxidant, optionally formulated in a pharmaceutically acceptable carrier. This combination of active agents provides significant, effective relief of the symptoms of diabetic neuropathy, as well as at least partial recovery of lost neurol. function in some cases. In addition, the compns. of the present invention, when used in effective amis. to treat diabetic neuropathy, do not exhibit the severe side effects of many prior art compns. proposed for treatment of this allment. An effective amount of the composition of the invention is administered over a period of time sufficient to provide the beneficial effects of relief from the symptoms of diabetic neuropathy, as well as at least some recovery of the damaged nerve tissues. For example, A topical composition including a mixture of an hydrophilic ointment

base, sodium acid phosphate moisturizing agent, witch hazel extract, glycerin, apricot kernel oil and DL-panthenol, together with pharmaceutically acceptable carrier, and further including, as active agents, vitamins A and D3, ascorbyl palmitate, quercetin and vitamin E acetate, was prepared by cold compounding. The topical composition was applied twice daily in the morning and afternoon under the supervision of a physician, but patients were permitted to apply the composition up to six times daily, as needed for pain relief over a period of a few days. All patients treated experienced immediate pos. results that lasted up to a day or two after treatment was discontinued. The effects noted by the patients included the relief of burning pain, tingling, healing of damaged skin, and reversal of skin discoloration due to impaired circulation.

ΙT 961-29-5, Isoliquiritigenin

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL

(Biological study); USES (Uses)

(compns. containing nerve growth factor promoters, aldose reductase inhibitors and antioxidants for treatment of diabetic

neuropathy) 961-29-5 HCAPLUS RN

2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2001:401646 HCAPLUS Full-text

DOCUMENT NUMBER: 135:152641 TITLE:

Synthesis of flavonoids and their effects on aldose

reductase and sorbitol accumulation in

streptozotocin-induced diabetic rat tissues AUTHOR(S):

Lim, Soon Sung; Jung, Sang Hoon; Ji, Jun; Shin, Kuk Natural Products Research Institute, Seoul National

Hvun; Keum, Sam Rok

University, Seoul, S. Korea

Journal of Pharmacy and Pharmacology (2001),

53(5), 653-668

CODEN: JPPMAB; ISSN: 0022-3573

PUBLISHER . Pharmaceutical Press

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:152641

The purpose of this study was to develop new compds. with these dual-effects through synthesis of chalcone derivs, and by examining the structure-activity relationships on the inhibition of rat lens aldose reductase as well as on antioxidant effects. A series of 35 flavonoid derivs. were synthesized by Winget's condensation, oxidation, and reduction of appropriate acetophenones with appropriate benzaldehydes. The inhibitory activity of these derivs. on rat lens aldose reductase and their antioxidant effects, measured using Cu2+ chelation and radical scavenging activities on 1,1-diphenyl-picrylhydrazyl in-vitro, were evaluated. Their effect on sorbitol

CORPORATE SOURCE:

SOURCE:

AR

accumulation in the red blood cells, lenses and sciatic nerves of streptozotocininduced diabetic rats was also estimated Among the new flavonoid derivs. synthesized, those with the 2',4'-dihydroxyl groups in the A ring such as 2,4,2',4'tetrahydroxychalcone, 2,2',4'-trihydroxychalcone, 2',4'-dihydroxy-2,4dimethylchalcone and 3,4,2',4'-tetrahydroxychalcone (I) were found to possess the highest rat lens aldose reductase inhibitory activity in-vitro, their IC50 values (concentration of inhibitors giving 50% inhibition of enzyme activity) being 1.6 + 10-7, 3.8 + 10-7, 4.0 + 10-7 and 4.6 + 10-7 M, resp. All of the chalcones tested except those with o-dihydroxy or hydroquinone moiety showed a weak free radical scavenging activity. In the in-vivo expts., however, compound I with o-dihydroxy moiety in the B ring showed the strongest inhibitory activity in the accumulation of sorbitol in the tissues. It also showed the strongest activity in transition metal chelation and free radical scavenging activity. Of the 4,2'-dihydroxyl and 2',4'dihydroxyl derivs. of flavonoid synthesized, including chalcone, flavone, flavanone, flavonol and dihydrochalcone, some chalcone derivs. synthesized were found to possess aldose reductase inhibition and antioxidant activities in-vitro as well as inhibition in the accumulation of sorbitol in the tissues in-vivo. 3,4,2',4'-Tetrahydroxychalcone (I, butein) was the most promising compound for the prevention or treatment of diabetic complications.

IT 487-52-5P, Butein 961-29-5P 25515-43-9P 34000-31-2P 34000-35-6P 318296-33-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis of flavonoids and effects on aldose reductase and sorbitol

accumulation in streptozotocin-induced diabetic rat tissues) RN 487-52-5 HCAPLUS

2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(3,4-dihydroxyphenyl)-, (2E)(CA INDEX NAME)

Double bond geometry as shown.

RN 961-29-5 HCAPLUS

CN 2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

RN 25515-43-9 HCAPLUS

CN 2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-phenyl-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

RN 34000-31-2 HCAPLUS

CN 2-Propen-1-one, 1-(2-hydroxypheny1)-3-(4-hydroxypheny1)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

RN 34000-35-6 HCAPLUS

CN 2-Propen-1-one, 1-(2,4-dihydroxypheny1)-3-(4-methylpheny1)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

RN 318296-33-2 HCAPLUS

CN 2-Propen-1-one, 3-(4-bromophenyl)-1-(2,4-dihydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

REFERENCE COUNT:

41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1997:563086 HCAPLUS Full-text

DOCUMENT NUMBER: 127:220466 ORIGINAL REFERENCE NO.: 127:42961a,42964a

TITLE . Preparation and formulation of phenylalkanediones and

analogs as therapeutic agents for diabetes INVENTOR(S): Shinkai, Hisashi; Ozeki, Hidekazu; Furukawa, Noboru PATENT ASSIGNEE(S):

Japan Tobacco Inc., Japan; Shinkai, Hisashi; Ozeki, Hidekazu; Furukawa, Noboru

SOURCE: PCT Int. Appl., 220 pp.

Patent

CODEN: PIXXD2

DOCUMENT TYPE:

LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PA:	TENT NO.			KIN)	DATE				ICAT				D	ATE		
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AU	2246725 9716732 719396			A1 A		1997 1997 2000	0902										
JP JP	09286755 3104966			A B2		1997 2000	1104 1030										
EP	885869 R: AT, IE,					1998 ES,											
HU	1216522 9900715 9900715			A2		1999 1999 2000	0628			997- 999-					9970: 9970:		
RU	9707588 2174114 1997MA00	338				1999 2001 2005	0927		RU 1	998-	1175	10		1	9970: 9970: 9970:	217	<
NO	9803770 Y APPLN.			A		1998			NO 1 JP 1	998-	3770 5688:	3		1 A 1	99801 99601 99701	818 219	<

OTHER SOURCE(S):

MARPAT 127:220466 AR The title compds. R1COCRR2XCOR3 [wherein X represents O, etc.; R1 represents an optionally substituted alkyl group having 1 to 5 carbon atoms, an optionally substituted alkenyl group having 2 to 6 carbon atoms, an optionally substituted aryl moiety, etc.; R2 represents a hydrogen atom, an optionally substituted alkyl group (having 1 to 5 carbon atoms), etc.; R represents a hydrogen atom; and R3 represents an optionally substituted alkyl group (having 1 to 5 carbon atoms), etc.] are prepared The title agents have excellent blood sugar lowering activity in the case of high blood sugar level, do not influence the blood sugar in the case of normal blood sugar level, i.e., do not cause any severe side effect, such as hypoglycemia, and are useful not only as therapeutic agents but also as prophylactics for chronic complications of diabetes. 3-Benzov1-1-cyclopentanone at 1 mg/kg gave 27.8% decrease of blood sugar in rats dosed with glucose.

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of phenylalkanediones and analogs as therapeutic agents for

614-47-1 HCAPLUS

^{614-47-1,} trans-Chalcone

2-Propen-1-one, 1,3-diphenvl-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1997:417489 HCAPLUS Full-text

DOCUMENT NUMBER: 127:130934

ORIGINAL REFERENCE NO.: 127:25125a,25128a TITLE:

Antioxidant constituents from licorice roots: isolation, structure elucidation and antioxidative

capacity toward LDL oxidation

AUTHOR(S): Vaya, Jacob; Belinky, Paula A.; Aviram, Michael Migal, Galilee Technol. Cent., Kiryat Shmona, 10200,

CORPORATE SOURCE:

Israel SOURCE: Free Radical Biology & Medicine (1997),

23(2), 302-313

CODEN: FRBMEH; ISSN: 0891-5849

Elsevier PUBLISHER: DOCUMENT TYPE: Journal

LANGUAGE: English

The present study analyzed the antioxidative properties of natural compds. from the root of the plant Glycyrrhiza glabra (licorice) toward LDL oxidation Seven constituents, with antioxidant capacity were isolated from Glycyrrhiza glabra. The isolated compds, were identified as the isoflavans Hispaglabridin A, Hispaglabridin B, Glabridin, and 4'-0-Methylglabridin, the two chalcones, isoprenylchalcone derivative and Isoliquiritigenin, and the isoflavone, Formononetin. Among these compds., Glabridin constituted the major amount in the crude extract (11.6%, weight/weight) as detected by high-performance liquid chromatog. (HPLC) anal. The antioxidative capacities of the isolated compds. were tested against β -carotene destruction and LDL oxidation The isoflavans at a concentration of 50 µM inhibited β-carotene consumption, following 90 min of incubation at 50°, similar to the inhibitory effect of the whole licorice crude extract (at 16 mg/L). The chalcones exhibited moderate inhibition and the isoflavone was almost inactive whereas vitamin E (50 μ M) completely inhibited β -carotene consumption. The inhibitory effect of the constituents at a concentration of 30 µM on 2,2'-azobis(2-amidinopropane) dihydrochloride (AAPH)-induced LDL oxidation was determined by measuring the amount of the thiobarbituric acid reactive substances (TBARS) and the amount of lipid peroxides. While the isoflavans and chalcones exhibited high inhibitory activity, Formononetin and vitamin E were not active. A dose-dependent inhibitory effect of Glabridin on the formation of cholesteryl linoleate hydroperoxide (CLOOH) in an AAPH-induced LDL oxidation system was also shown. Glabridin, at 5 or 40-60 uM concentration, inhibited the CLOOH formation by 62% and 90%, resp. These results suggest that the isoflavans and chalcones are very potent antioxidants toward LDL oxidation with Glabridin being the most abundant and potent antioxidant. As LDL oxidation is a key event in the formation of the early atherosclerotic lesion, the use of these natural antioxidants may be proven beneficial to attenuate atherosclerosis.

\$61-29-5P, Isoliquiritigenin

RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR

(Purification or recovery); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); USES (Uses)

(antioxidant constituents from licorice roots and isolation and structure elucidation and antioxidative capacity toward LDL oxidation in relation to atherosciences inhibition)

RN 961-29-5 HCAPLUS

CN 2-Propen-1-one, 1-(2,4-dihydroxypheny1)-3-(4-hydroxypheny1)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

L18 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1994:245079 HCAPLUS Full-text

DOCUMENT NUMBER: 120:245079

ORIGINAL REFERENCE NO.: 120:43453a,43456a

TITLE: Preparation of thiazolidine-2, 4-dione derivatives as antidiabetics

INVENTOR(S): Myaoka, Shozo; Sato, Hiroko; Takahashi, Keimei;

Ushijima, Hideto

PATENT ASSIGNEE(S): Terumo Corp, Japan SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05310718	A	19931122	JP 1992-110460	19920428 <
PRIORITY APPLN. INFO.:			JP 1992-110460	19920428 <
OTHER SOURCE(S):	MARPAT	120:245079		
GI				

AB The title derivs. I (R1, R2 = H, OH, lower alkoxy, alkoxymethoxy) are prepared A mixture of 25.0 g 5-(3-acetylbenzyl)thiazolidine-2,4-dione (prepared from aminoacetophenone in 2 steps), 19.7 g 3-methoxy-4-methoxymethoxybenzaldehyde, and aqueous KOH in MeOH was treated at room temperature for 2.5 h to give 23.1 g 5-[3-(3-(3-methoxy-4-methoxymethoxyphenyl)-2-propenoyl)benzyl]thiazolidine- 2,4-dione, which (6.20 g) was treated with tert-Bu bromacetate in the presence of K2CO3 in DMF

at room temperature for 1.5 h to give 3-tert-butoxycarbonylmethyl-5-[3-(3-(4-hydroxy-3-methoxyphenyl)-2- propencyl)benzyl]thiazolidine-2,4-dione (II). II (4.30 g) was stirred at room temperature in HCO2H for 2.5 h to give 2.70 g I (Rl = OMe, R2 = OH) (III). III inhibited aldose reductase with IC50 of 1.4 + 10-7.

RN 154066-97-4 HCAPLUS

CN 3-Thiazolidineacetic acid, 5-[[4-[3-(4-hydroxy-3-methoxyphenyl)-1-oxo-2-propen-1-yl]phenyl]methyl]-2,4-dioxo- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

L18 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1993:80926 HCAPLUS Full-text DOCUMENT NUMBER: 118:80926

ORIGINAL REFERENCE NO.: 118:14241a,14244a

TITLE: Thiazolidine-2,4-dione compounds, method for their production, and medicines containing them for

treatment of diabetic complications

INVENTOR(S): Miyaoka, Shozo; Takahashi, Hiroaki; Ushijima, Hideto;

Sato, Hiroko

PATENT ASSIGNEE(S): Terumo Corp., Japan
SOURCE: Eur. Pat. Appl., 11 pp.
CODEN: EPXXDW

DOCUMENT TYPE: P.
LANGUAGE: E:
FAMILY ACC. NUM. COUNT: 1

Patent English

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 489663	A1	19920610	EP 1991-403312	19911206 <
R: BE, CH, DE,	FR, GB	, IT, LI, NL	, SE	
JP 04210683	A	19920731	JP 1990-413602	19901206 <
US 5225426	A	19930706	US 1991-802308	19911204 <
PRIORITY APPLN. INFO.:			JP 1990-413602 A	19901206 <
OTHER SOURCE(S):	MARPAT	118:80926		
0.7				

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AB Title compds. I (R1 = H, Me) are prepared as antidiabetic drugs with a combined action, both inhibiting aldose reductase and depressing blood sugar. For example, condensation of 5-(4-acety)benzyl)thiazolidine-2,4-diome (prepared in 2 steps) with 3,4-(MeO) (MeOCH2O)CGH3CHO in methanolic KOH, and deprotection of the product by HCl in aqueous THF-MeOH, gave I (R1 = Me; CH2 group in 4-position) (II). At 100 mg/kg/day orally for 4 days in diabetic rats, II gave 93.8% inhibition of sorbitol accumulation and 60.5% drop in blood sugar, whereas a comparative thiazoleacetic acid derivative gave 90.3% inhibition of sorbitol but only 7.2% blood sugar drop. Prepns. and biol. data for 3 I are described; these and 3 addnl. I are claimed.

II 115704-62-8P 145704-64-99 145704-67-2P

145704-68-3P

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of, as antidiabetic)

RN 145704-63-8 HCAPLUS

CN 2,4-Thiazolidinedione, 5-[[4-[3-(3,4-dihydroxyphenyl)-1-oxo-2-propen-1-yl]phenyl]methyl]- (CA INDEX NAME)

PAGE 1-A

 $_{\rm bh}^{\rm page~2-a}$

- RN 145704-64-9 HCAPLUS
- CN 2,4-Thiazolidinedione, 5-[[4-[3-(4-hydroxy-3-methoxypheny1)-1-oxo-2-propen-1-y1]pheny1]methy1]- (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

ЬΗ

RN 145704-67-2 HCAPLUS

CN 2,4-Thiazolidinedione, 5-[[2-[3-(3,4-dihydroxyphenyl)-1-oxo-2-propen-1-yl]phenyl]methyl]- (CA INDEX NAME)

RN 145704-68-3 HCAPLUS

CN 2,4-Thiazolidinedione, 5-[[2-[3-(4-hydroxy-3-methoxyphenyl)-1-oxo-2-propen-1-yl]phenyl]methyl]- (CA INDEX NAME)

L18 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1992:51296 HCAPLUS Full-text

DOCUMENT NUMBER: 116:51296

ORIGINAL REFERENCE NO.: 116:8694h,8695a

TITLE: Effects of aldose reductase inhibitors on prostacyclin

(PGI2) synthesis by aortic rings from rats with

streptozotocin-induced diabetes

Wakasugi, M.; Noguchi, T.; Inoue, M.; Tawata, M.;

Shindo, H.; Onaya, T.

CORPORATE SOURCE: Med. Sch., Univ. Yamanashi, Yamanashi, 409-38, Japan

SOURCE: Prostaglandins, Leukotrienes and Essential Fatty Acids

(1991), 44(4), 233-6

CODEN: PLEAEU: ISSN: 0952-3278

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effects of aldose reductase inhibitors (ARIs) on the synthesis of PGI2 by aortic rings from diabetic rats were examined The ARIs studied were ONO-2235 and isoliquiritigenin, a new compound extracted from glycyrrhizae radix. The content of sorbitol in the sciatic nerve of diabetic rats induced by streptozotocin was increased as compared with that of controls. This increase was inhibited by the

Page 37 of 56

AUTHOR(S):

administration of an ARI. On the other hand, there was a decrease in the synthesis of PGI2 by the diabetic rats compared with the control rats. The decrease in PGI2 synthesis was reversed by the administration of an ARI. Furthermore, the synthesis of PGI2 by the aortic rings was inversely correlated with the content of sorbitol in sciatic nerves. Those observations suggest that an ARI may have a beneficial effect on the vascular synthesis of PGI2 in diabetes mellitus.

IT 961-29-5, Isoliquiritigenin RL: BIOL (Biological study)

> (aldose reductase inhibition by, prostacyclin formation in aorta response to, in diabetes mellitus)

961-29-5 HCAPLUS RN

CN 2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

L18 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1990:584545 HCAPLUS Full-text

DOCUMENT NUMBER:

113:184545 ORIGINAL REFERENCE NO.: 113:31051a,31054a

TITLE: AUTHOR(S): Isoliquiritigenin: a new aldose reductase inhibitor

from Glycyrrhizae Radix

Aida, Kaoru; Tawata, Masato; Shindo, Hideo; Onaya, Toshimasa; Sasaki, Hiroshi; Yamaguchi, Takuji; Chin,

Masao; Mitsuhashi, Hiroshi

CORPORATE SOURCE: Med. Sch., Univ. Yamanashi, Yamanashi, 409-38, Japan SOURCE: Planta Medica (1990), 56(3), 254-8

CODEN: PLMEAA; ISSN: 0032-0943

DOCUMENT TYPE: Journal LANGUAGE: English

GΙ

Traditionally in Japan, some kampo medicines (traditional oriental herbal AB prescriptions) have long been used for the treatment of diabetic neuropathy. Some aldose reductase inhibitors are included among these drugs. Thus, the components of Glycyrrhizae Radix, a constituent of some kampo medicines were studied and 6 compds. (GUs 9-17) were isolated. Among these, GU-17, identified as isoliquiritigenin (I), had the most potent aldose reductase inhibiting activity. I inhibited rat lens aldose reductase with an IC50 of 3.2 + 10-7 M, using DL-glyceraldehyde as a substrate. It inhibited sorbitol accumulation in human red blood cells in vitro,

with an IC50 of 2.0 + 10-6 M. I, when administered via an intragastric tube to diabetic rats, suppressed sorbitol accumulation in the red blood cells, the sciatic nerve, and the lens as effectively as ONO-2235. These results suggest that I may be effective in preventing diabetic complications.

961-29-5, Isoliquiritigenin RL: BIOL (Biological study)

(of glycyrrhiza root, aldose reductase inhibition by, diabetes

in relation to) 961-29-5 HCAPLUS

RN 2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(4-hydroxyphenyl)-, (2E)- (CA CN INDEX NAME)

Double bond geometry as shown.

L18 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 1988:637045 HCAPLUS Full-text

DOCUMENT NUMBER: 109:237045

ORIGINAL REFERENCE NO.: 109:39113a,39116a

TITLE: Pharmaceuticals containing aldose reductase inhibitors for treatment of diseases caused by diabetes

INVENTOR(S): Meya, Toshimasa; Tawada, Masato; Sasaki, Hiroshi;

Nishimura, Hiroaki PATENT ASSIGNEE(S):

Tsumura Juntendo, Inc., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	API	PLICATION NO.	DATE
JP 63104912	A	19880510	JP	1986-248389	19861021 <
JP 07055902	В	19950614			
PRIORITY APPLN. INFO.:			JP	1986-248389	19861021 <
OTHER SOURCE(S):	MARPAT	109:237045			
O.T.					

AB Pharmaceuticals contain aldose reductase inhibitors
dihydroxyphenyl(phenyloxy)propenone derivs. (I; R = H, glucosyl, or apioglucosyl)
for treatment of diseases derived from diabetes. I (R = glucosyl) was extracted
from licorice, and purified by a series of column chromatog. I (R = glucosyl) 100
and anhydrous silicic acid 20 g were mixed, and 75 g corn starch was added, followed
by 100 mL 10% hydroxypropyl cellulose-alc. mixture This mixture was made into
granules.

IT 961-29-5 RL: BIOL (Biological study)

(pharmaceutical containing, for treatment of diseases related to diabetes)

RN 961-29-5 HCAPLUS

CN

2-Propen-1-one, 1-(2,4-dihydroxyphenyl)-3-(4-hydroxyphenyl)-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

L18 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1988:112221 HCAPLUS Full-text

DOCUMENT NUMBER: 108:112221

ORIGINAL REFERENCE NO.: 108:18373a,18376a

TITLE: Preparation of (heterocyclylalkenyl)mevalonates as hypolipemics and antiatherosclerotic agents

INVENTOR(S): Wareing, James Richard; Damon, Robert Edson
PATENT ASSIGNEE(S): Sandoz A.-G., Switz.; Sandoz-Patent-G.m.b.H.;
Sandoz-Effindungen Verwaltungsgesellschaft m.b.H.

SOURCE: Eur. Pat. Appl., 41 pp.

CODEN: EPXXDW DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE -------------------EP 221025 A1 19870506 EP 1986-810470 19861021 <--R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE WO 8702662 19870507 WO 1986-EP598 A2 19861021 <--WO 8702662 A3 19871217 W: AU, DK, FI, HU, JP, KR AU 8665994 Α 19870519 AU 1986-65994 19861021 <--AU 598775 B2 19900705 T 19880428 JP 1986-505883 A2 19890529 HU 1986-5313 A 19900917 IL 1986-80403 C 19910108 CA 1986-521333 JP 63501153 19861021 <--HU 48208 19861021 <---IL 80403 19861023 <--CA 1278794 19861024 <---PL 154130 B1 19910731 PL 1986-262032 19861024 <--A 19870525 FI 1987-2299 FI 8702299 19870525 <--DK 8703218 A 19870624 DK 1987-3218 19870624 <--

US 1985-791198

A 19851025 <--

PRIORITY APPLN. INFO.:

US 1986-816664 WO 1986-EP598 A 19860107 <--A 19861021 <--

OTHER SOURCE(S): GI

OTHER SOURCE(S): MARPAT 108:112221

- AB The title compds. [I, II; Rl,R2 = alkyl, cycloalkyl, (un)substituted Ph; R3 = R4, alkenyl; R4 = H, R1; X = (CH2)m, alkenylene; Y = NR4, O, S; Z = CHOHCH2CR5OHCH2CO2H; R5 = H, alkyl; m = 0-3] were prepared as hypolipemics and antiatherosclerotic agents (no data). PhCOCH2CH(CHMe2)COCO2Et (preparation given) and 4-FC6H4NH2 were refluxed 16 h in PhMe containing TiCld to give III (R = CO2Et) which was converted in 7 steps to (±)-erythro-III (R = CH:CHCHOHCH2CHOHCH2CO2Et).
- IT 22966-07-0P
 - RL: SPN (Synthetic preparation); PREP (Preparation)
 - (preparation and condensation of, in preparation of hypolipemic and antiatheroscierotic agents)
- RN 22966-07-0 HCAPLUS
- CN 2-Propen-1-one, 3-(4-fluorophenyl)-1-phenyl-, (2E)- (CA INDEX NAME)

Double bond geometry as shown.

Serial#: 10/520,078 INVENTOR SEARCH

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 13:55:55 ON 30 JUN 2009

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=> D STAT OUE L23

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L3
L4 (
        47768) SEA FILE=REGISTRY SSS FUL L3
1.5
L6
         2679 SEA FILE=REGISTRY SUB=L4 SSS FUL L5
L7
         9264 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L6
1.8
       191239 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON (DIABETES/CT OR
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L9
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                OR ?ATHEROSCLER?/BI
L10
      187726 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON OBESITY+NT/CT OR
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               OR REDUCTION OR MANAGEMENT))/BI
L11
         3805 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L8 AND L9 AND L10
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L12
L13
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L16
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L18
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T.19
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L20
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              K?/AU OR CAUMONT K?/AU OR BERTRAND K?/AU
L21
            5 SEA FILE-HCAPLUS SPE=ON ABB=ON PLU=ON L19 AND L20
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L22

L23

L23 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:1470011 HCAPLUS Full-text

DOCUMENT NUMBER: 148:100385

OR L20)

TITLE: Preparation of 1,3-diphenylpropane derivatives,

particularly 2-[4-(3-oxo-3-phenylpropyl)phenoxy]-2methylpropanoic acids and related derivatives, as PPAR

3 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON (L12 OR L18) AND (L19

agonists for treating diseases especially dyslipidemia

7 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L21 OR L22

INVENTOR(S): Delhomel, Jean-Francois; Hanf, Remy;

CODEN: PIXXD2

Caumont-Eertrand, Karine

PATENT ASSIGNEE(S): Genfit, Fr.

SOURCE: PCT Int. Appl., 108pp.

DOCUMENT TYPE: Patent

LANGUAGE: French FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO. KIND DATE APPLICATION NO. DATE

	WO	2007	1478	79		A1		2007	1227		WO 2	007-1	EP56:	224		2	0070	621	
		W:	ΑE,	AG,	AL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,	
			CH,	CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FΙ,	
			GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	
			KM,	KN,	KP,	KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	MG,	
			MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	
			RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	TJ,	TM,	TN,	TR,	
			TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW						
		RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	
			IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	
			BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,	
			GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,	
			BY,	KG,	KZ,	MD,	RU,	TJ,	TM										
	FR	2902	789			A1		2007	1228		FR 2	006-	5540			2	0060	621	
	AU	2007	2629	38		A1		2007	1227		AU 2	007-	2629	38		2	0070	621	
	CA	2655	643			A1		2007	1227		CA 2	007-	2655	643		2	0070	621	
	EP	2046	715			A1		2009	0415		EP 2	007-	7302	96		2	0070	621	
		R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	
			IS,	IT,	LI,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	
			AL,	BA,	HR,	MK,	RS												
	IN	2009	MNO0:	149		A		2009	0515		IN 2	009-1	MN14	9		2	0090	119	
	KR	2009	0355	35		A		2009	0409		KR 2	009-	7013	19		2	0090	121	
PRIOF	RIT	Y APP	LN.	INFO	. :						FR 2	006-	5540			A 2	0060	621	
											WO 2	007-	EP56:	224	1	W 2	0070	621	
OTHEF GI	R SC	DURCE	(S):			MAR	PAT	148:	1003	85									

AB Title compds. I [XI = R1, G1R1, X2 = halo, R2, G2R2; X3 = R3, G3R3; X4 = halo, R4, G4R4, X5 = R5, G5R5; R1 = H, nonhalogenated alkyl; R2 = H, alkyl; R3-R5 = independently H, (un)substituted alkyl; G1-G5 = independently O, S; with at least one of X3-X5 = R3, G3R3, R4, G4R4, R5, G5R5 in which G3-G5 = defined as above and R3-R5 = independently alkyl substituted with 1-2 substituents selected from CO2H and derivs., CONH2 and derivs., SO3H, SO2HH2 and derivs.; A = CR6R7, CO, C:N-OH, C:N-OR8; R6, R7 = independently H, OH, OR8, alkyl; R8 = independently alkyl substituted with an aryl or cycloalkyl group; D = CH2, CHY; Y = O- or S-heterocycle; with the exclusion of compds. I in which A = CH2 and at least 3 of X1-X5 = H; and their stereoisomers, racemates, geometrical isomers, tautomers, salts, hydrates, solvates, solid forms and their mixts.] were prepared as PPAR activators, especially agonists, for treating dyslipidemia, diabetes type II and related diseases. Thus, reduction of 2-[2,6-dimethyl-4-[3-[4-(methylthio)phenyl]-3-oxoprop-1-enyl]phenoxyl-2-methylpropanoic acid with triethylsilane in TFA at room temperature gave acid II

P

(m.p. = 109-110°). Selected I were hPPAR α , hPPAR γ , and/or hPPA δ activators in an induced luciferase activity via hPPAR α /Gal4, hPPAR γ /Gal4, and hPPAR δ /Gal4 transactivation assay. I displayed hypolljemic properties by lowering the plasmatic cholesterol and triglycerides rates. I are useful for treating diabetes type II, dyslipidemia, pathologies associated with metabolic syndrome, cardiovascular diseases, etc.

II 1000335-14-7, 2-[3-[4-(Methylthio)phenyl]-3-oxoprop-1enyl]phenoxy]-2-methylpropanoic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 1,3-diphenylpropane derivs. as PPAR activators for treating diseases especially dyslipidemia)

RN 1000335-14-7 HCAPLUS

CN Propanoic acid, 2-methyl-2-[3-[3-[4-(methylthio)phenyl]-3-oxo-1-propen-1-yl]phenoxyl- (CA INDEX NAME)

REFERENCE COUNT:

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2007:1470010 HCAPLUS Full-text

5

DOCUMENT NUMBER: 148:100384

TITLE: Preparation of 1,3-diphenylpropane derivatives,

particularly 2-[4-(3-oxo-3-phenylpropyl)phenoxy]-2methylpropanoic acids and related derivatives, as PPAR
agonists for treating diseases especially dyslipidemia

INVENTOR(S): Delhomel, Jean-François; Hanf, Remy;

Caumont-Bertrand, Karine

PATENT ASSIGNEE(S): Genfit, Fr.

SOURCE: PCT Int. Appl., 97pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

	TENT		KIN	D	DATE		1	APPL	ICAT	ION I	NO.		D	ATE			
	2007				A1	-	2007	1227	1	WO 2	007-	EP56:	225		2	0070	
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BH,	BR,	BW,	BY,	BZ,	CA,
		CH,	CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	DO,	DZ,	EC,	EE,	EG,	ES,	FI,
		GB,	GD,	GE,	GH,	GM,	GT,	HN,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,
		KM,	KN,	KP,	KR,	KZ,	LA,	LC,	LK,	LR,	LS,	LT,	LU,	LY,	MA,	MD,	ME,
		MG,	MK,	MN,	MW,	MX,	MY,	MZ,	NA,	NG,	NI,	NO,	NZ,	OM,	PG,	PH,	PL,
		PT,	RO,	RS,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SM,	SV,	SY,	TJ,	TM,	TN,
		TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	ZA,	ZM,	ZW				
	RW:	ΑT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	IT,	LT,	LU,	LV,	MC,	MT,	NL,	PL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,
		BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG,	BW,
		GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	AZ,
		BY,	KG,	KZ,	MD,	RU,	ΤJ,	TM									
FR	2902	789			A1		2007	1228	1	FR 2	006-	5540			2	0060	621

AU	2007	2629	39		A1		2007	1227		AU	2007-	2629	39		2	0070	621
CA	2655	744			A1		2007	1227		CA	2007-	2655	744		2	0070	621
EP	2046	716			A1		2009	0415		EP	2007-	7867	98		2	0070	621
	R:	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE	, ES,	FI,	FR,	GB,	GR,	HU,	IE,
		IS,	IT,	LI,	LT,	LU,	LV,	MC,	MT,	NL	, PL,	PT,	RO,	SE,	SI,	SK,	TR,
		AL,	BA,	HR,	MK,	RS											
IN	2008	DN10	605		A		2009	0612		IN	2008-	DN10	605		2	0081	223
KR	2009	0591	05		A		2009	0610		KR	2009-	7013	18		2	0090	121
PRIORIT	Y APP	LN.	INFO	. :						FR	2006-	5540			A 2	0060	621
										WO	2007-	EP56	225		W 2	0070	621
OTHER S	DURCE	(S):			MARI	PAT	148:	1003	84								

Title compds, I [X1 = halo, R1, G1R1; X2 = halo, R2, G2R2; X3 = R3, G3R3; X4 = halo, AB R4, G4R4; X5 = R5, G5R5; R1 = haloalkyl; R2 = H, alkyl; R3-R5 = independently H, (un) substituted alkyl; G1-G5 = independently O, S; with at least one of X3-X5 = R3, G3R3, R4, G4R4, R5, G5R5 in which G3-G5 = defined as above and R3-R5 = independently alkyl substituted with 1-2 substituents selected from CO2H and derivs., CONH2 and derivs., SO3H, SO2NH2 and derivs.; A = CR6R7, CO, C:N-OH, C:N-OR8; R6 = H, alkyl, OR8; R7 = alkyl, OH, OR8; R8 = independently alkyl substituted with an aryl or cycloalkyl group; D = CH2, CHY; Y = O- or S-heterocycle; and their stereoisomers, racemates, geometrical isomers, tautomers, salts, hydrates, solvates, solid forms and their mixts.] were prepared as PPAR activators, especially agonists, for treating dyslipidemia, diabetes type II and related diseases. Thus, reduction of 2-[2,6-dimethyl-4-[3-[4- (trifluoromethylthio)phenyl]-3-oxoprop-1-enyl]phenoxy]-2methylpropanoic acid with triethylsilane in DCM in the presence of TFA at room temperature gave the acid II (m.p. = 83-85°). Selected I were hPPARa, hPPARy, and/or hPPAS activators in an induced luciferase activity via hPPARa/Gal4, hPPARy/Gal4, and hPPARδ/Gal4 transactivation assay. I displayed hypolipemic properties by lowering the plasmatic cholesterol and triglycerides rates. I are useful for treating diabetes type II, dyslipidemia, pathologies associated with metabolic syndrome, cardiovascular diseases, etc.

1000336-61-7, 2-[[4-[3-(4-Chloro-2-hydroxyphenyl)-3-oxoprop-1-

enyl]phenyl]thio]-2-methylpropanoic acid

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 1,3-diphenylpropane derivs. as PPAR activators for treating diseases especially dyslipidemia)

1000336-61-7 HCAPLUS RN

CN Propanoic acid, 2-[[4-[3-(4-chloro-2-hydroxyphenyl])-3-oxo-1-propen-1vl|phenvl|thio|-2-methvl- (CA INDEX NAME)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:650984 HCAPLUS Full-text

DOCUMENT NUMBER: 141:190511

TITLE: Preparation of acyl aminopropanediols as PPAR, in

particular PPARa, agonists and antioxidants for treating cerebral ischemia and related diseases INVENTOR(5): Darteil, Raphael; Caumont, Bertrand Karine;

Najib, Jamila

PATENT ASSIGNEE(S): Genfit S. A., Fr. SOURCE: Fr. Demande, 95 pp.

CODEN: FRXXBL DOCUMENT TYPE: Patent

LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

	TENT						DATE					TION				ATE	
FR	2850	969			A1							-1688				0030	212
	2850																
												-2132					
												-2515					
WO	2004	0742	39		A1		2004	0902		WO	2004	-FR31	9		2	0040	212
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BE	B, BG	, BR,	BW,	BY,	ΒZ,	CA,	CH,
		CN,	co,	CR,	CU,	CZ,	DE,	DK,	DM,	D2	z, EC	, EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	18	, JP	, KE,	KG,	KP,	KR,	KZ,	LC,
		LK.	LR.	LS.	LT.	LU.	LV.	MA.	MD.	MO	. MK	, MN,	MW.	MX.	MZ.	NA.	NI
	RW:											, TZ,					
												, GB,					
												, CF,					
							SN,				, 20	, 01,	00,	01,	C11,	0117	OI1)
EP	1592										2004	-7104	12		2	0040	212
												, LI,					
	κ.											, BG,					
ON	1242																
CN	1330	021			Α.		2000	0313		CIN	2004	-8000	4024		- 4	0040	212
CN	1330	031	70		_		2007	0000			2000	-5021			_		0.7.0
										US	2005	-5412	25		2	0050	701
	7253																
					A		2009	0424				-DN30					
ORIT	Y APP	LN.	INFO	. :								-1688					
										WO	2004	-FR31	.9		W 2	0040	212
ER S	DURCE	(S):			MARI	PAT	141:	1905	11								

F

AB Title compds. I [wherein F, G = independently O, S, NR4; F = G = NR4 never possible; R, R4 = independently H, (un)saturated (un)substituted alkyl; R1, R2, R3 = independently H, C(:0)R5, C(:0)(CH2)2n+1-X-R6, with a least one of R1, R2, R3 = C(:O)(CH2)2n+1-X-R6; R5 = (un)saturated (un)substituted (C1-C25) alkyl, optionally containing a cyclic group; X = S, Se, SO, SO2; n = 0-11; R6 = (un)saturated (un) substituted (C3-C23) alkyl, optionally containing a cyclic group and/or O, S, Se, SO, SO2; with the exclusion of compds. for which FR2 = GR3 = OH; their optical and geometrical isomers, racemates, salts, hydrates and mixts. | were prepared as peroxisome proliferator-activated receptors-α (PPARα) agonists and antioxidants for treating cerebral ischemia and related diseases. For example, II was prepared in 3 steps from 1-bromotetradecane, mercaptoacetic acid, 3-aminopropane-1,2,-diol, and palmitic acid. In an antioxidant test, selected I diminished the formation of oxidation product of LDL by AAPH by 33%. Selected I were PPARlpha agonists and showed induced luciferase activity via PPARq/Gal4 transactivation. I are neuroprotectants useful for treating ischemia.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:650967 HCAPLUS Full-text

DOCUMENT NUMBER: 141:185113

TITLE: Therapeutic use of acyl glycerols and their nitrogen

and sulfur analogs

INVENTOR(S): Darteil, Raphael; Caumont, Bertrand Karine;

Najib, Jamila
PATENT ASSIGNEE(S): Genfit S. A., Fr.

SOURCE: Fr. Demande, 144 pp. CODEN: FRXXBL

DOCUMENT TYPE: Patent LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PAT	ENT	NO.			KIN	D	DATE			APPL	ICAT	ION	NO.		D	ATE	
						-											
FR	2850	870			A1		2004	0813		FR 2	003-	1691			2	0030	212
FR	2850	870			B1		2006	0728									
WO	2004	0736	98		A1		2004	0902		WO 2	004-	FR32	2		2	0040	212
	W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FΙ,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,

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LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI
        RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
            BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
            MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
            GQ, GW, ML, MR, NE, SN, TD, TG
    EP 1596845
                       A1 20051123 EP 2004-710415
                                                             20040212
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
    US 20060154984
                    A1 20060713 US 2005-542512 20050718
PRIORITY APPLN. INFO.:
                                        FR 2003-1691
                                                            A 20030212
                                         WO 2004-FR322
                                                           W 20040212
```

OTHER SOURCE(S): MARPAT 141:185113

3 The invention discloses the use of acyl glycerols and their nitrogen and sulfur analogs for the therapy and in particular in human health. The compds. of the invention have advantageous pharmacol. properties and are in particular usable for the prevention and treatment of neurodegenerative diseases.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:631313 HCAPLUS Full-text

DOCUMENT NUMBER: 141:151015

TITLE: Methods for the synthesis of nitrogen and sulphide

analogs of acylglycerols and uses thereof in the

treatment of brain diseases
INVENTOR(S): Darteil, Raphael: Capmont B

INVENTOR(S): Darteil, Raphael; Caumont Bertrand, Karine; Najib, Jamila

PATENT ASSIGNEE(S): Genfit S.A., Fr.

SOURCE: Fr. Demande, 86 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent LANGUAGE: French FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

PAT	TENT	NO.			KIN	D	DATE				ICAT				D.	ATE	
FR	2850	650			A1		2004	0806			2003-				2	0030	131
FR	2850	650			B1		2005	0325									
CA	2514	301			A1		2004	0819		CA 2	2004-	2514	301		2	0040	202
WO	2004	0692	41		A1		2004	0819		WO 2	2004-	FR22	9		2	0040	202
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KP,	KR,	KZ,	LC,
		LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	NI
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,
		BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,
		MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	BJ,	CF,	CG,	CI,	CM,	GA,	GN,
		GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG								
EP	1587	508			A1		2005	1026		EP 2	2004-	7072	52		2	0040	202
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK	
JP	2006	5179.	54		T		2006	0803		JP 2	2006-	5021	28		2	0040	202
US	2006	0252	827		A1		2006	1109		US 2	2005-	5404	82		2	0050	623
PRIORITY	Y APP	LN.	INFO	. :						FR 2	2003-	1144			A 2	0030	131
										WO 2	2004-	FR22	9	1	W 2	0040	202

OTHER SOURCE(S): MARPAT 141:151015

AB The present invention relates to preparation and therapeutic use of acylglycerols and their nitrogen and sulfide analogs, in particular for the treatment of cerebral ischemia.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS

RECORD, ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2009 ACS on STN ACCESSION NUMBER: 2004:19768 HCAPLUS $\underline{\text{Full-text}}$

DOCUMENT NUMBER: 140:76897

TITLE: Preparation of 1,3-diphenylprop-2-en-1-one as PPAR agonists and as antioxidants for treating cerebral

ischemia and related diseases

INVENTOR(S): Najib, Jamila; Caumont Bertrand,

Karine

PATENT ASSIGNEE(S): Genfit S.A., Fr.

SOURCE: Fr. Demande, 66 pp. CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

	TENT										PLICAT						
	2841										2002-						
FR	2841	900			B1		2007	0302									
										CA	2003-	2490	986			20030	708
WO	2004	0052	33		A1		2004	0115		WO	2003-	FR21	27			20030	708
	W:	AE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BE	BG,	BR,	BY,	BZ,	CA	CH,	CN,
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC	, EE,	ES,	FI,	GB,	GD	, GE,	GH,
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE	E, KG,	KP,	KR,	KZ,	LC	, LK,	LR,
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN	I, MW,	MX,	MZ,	NI,	NO	, NZ,	OM,
		PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE	s, sg,	SK,	SL,	SY,	ΤJ	, TM,	TN,
		TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VI.	1, YU,	ZA,	ZM,	ZW			
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ	Z, TZ,	UG,	ZM,	ZW,	AM	, AZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG	G, CH,	CY,	CZ,	DE,	DK	, EE,	ES,
		FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC	C, NL,	PT,	RO,	SE,	SI	, SK,	TR,
		BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GÇ), GW,	ML,	MR,	NE,	SN	, TD,	TG
AU	2003	2646	98		A1		2004	0123		AU	2003-	2646	98			20030	708
BR	2003	0123	98		A		2005	0412		BR	2003-	1239	8			20030	708
										EP	2003-	7627	49			20030	708
EP	1525	177			B1		2007	0627									
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GF	R, IT,	LI,	LU,	NL,	SE	, MC,	PT,
		ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AI	, TR,	BG,	CZ,	EE,	HU	, SK	
	1668										2003-						
JP	2005	5323	85		T		2005	1027		JΡ	2004-	5188	90			20030	708
AT	3657	03			T		2007	0715		ΑT	2004- 2003- 2003-	7627	49			20030	708
NZ	5380	51			A		2007	1130		NZ	2003-	5380	51			20030	708
ES	2281	528			13		2007	1216		ES	2003-	1621	49			20030	/08
	2004						2005	0204		ИО	2004-	5301				20041	203
MX	2005	0004	27		A		2005	0930		MX	2005-	427				20050	107
											2005-						
											2005-						
					A1		2007	0208			2006-						
PRIORIT	Y APP	LN.	INFO	. :							2002-						
											2003-					20030	
										US	2005-	5200	79		A2	20050	422
OTHER S	OURCE	(S):			MAR	PAT	140:	7689	7								
GI																	

^{*} STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. I [wherein X1 = halo, R1, G1R1; X2 = H, thionitroso, OH, alkylcarbonyloxy, alkyloxy, SH, alkylthio, alkylcarbonylthio or X2 = O or S that forms a 2-phenyl-4H-1-benzopyran-4-one with the carbon-3 of the propene chain; X3 =R3, G3R3; X4 = halo, thionitroso, R4, G4R4; X5 = R5, G5R5; X6 = O, NH and derivs.; R1, R3, R4, R5 = independently H, (un) substituted alkyl; G1, G3, G4, G5 = independently O or S; with at least one of X1, X3, X4, or X5 of formula GR and one of the R1, R3, R4, or R5 is a substituted radical, and that radical form a cycle, or is associated with a group G; their optical and geometrical isomers, racemates, tautomers, salts, hydrates and mixts.; with the exclusion of certain compds.] were prepared as peroxisome proliferator-activated receptors- α (PPAR α) agonists and as antioxidants for treating cerebral ischemia and related diseases. For example, II was prepared by mixed-Aldol condensation of ketone III with 4-hydroxy-3,5ditertbutylbenzaldehyde in the presence of ethanol/HCl. In an antioxidant test, selected I diminished the formation of oxidation product of LDL by AAPH by 33%. Selected I were PPARa agonists and showed induced luciferase activity via PPARa/Gal4 transactivation. I are neuroprotectants useful for treating ischemia.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2004:19750 HCAPLUS Full-text
DOCUMENT NUMBER: 140:76896

TITLE: Composition based on substituted

1,3-diphenylprop-en-1-one derivatives, preparation and

use as PPARa agonists, antioxidants as well as

antiinflammatory agents

INVENTOR(S): Najib, Jamila; Caumont Bertrand,

Karine

PATENT ASSIGNEE(S): Genfit S.A., Fr.

SOURCE: Fr. Demande, 66 pp.
CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

	ENT I				KIN	D	DATE										
FR	2841	784			A1 B1		2004 2007					8570				0020	
	2490				A1		2007			C 2	003-	2490	993		2	0030	708
	2004						2004								2		
	2004									110 2	000 .		20			0050	,,,,
							AU,			BB.	BG.	BR.	BY.	BZ.	CA.	CH.	CN.
							DK,										
							IN,										
							MD,										
							RU,										
							US,										
	RW:						MZ,								AM,	AZ,	BY,
		KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	EE,	ES,
		FI,	FR,	GB,	GR,	HU,	IE,	IT,	LU,	MC,	NL,	PT,	RO,	SE,	SI,	SK,	TR,
		BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
ΑU	2003	2646	99		A1		2004	0123		AU 2	003-	2646	99		2	0030	708
EΡ	1519	908			A2		2005	0406		EP 2	003-	7627.	50		2	0030	708
EΡ	1519	908			B1		2007	0613									
	R:	AT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
		IE,	SI,	LT,	LV,	FΙ,	RO,	MK,	CY,	AL,	TR,	BG,	CZ,	EE,	HU,	SK	
	R 2003012399 A																
CN	1688	532		A		2005	1026		CN 2	003-	8163	51		2	0030	708	

JP 2005532386	T	20051027	JP	2004-518891		20030708
AT 364588	T	20070715	AT	2003-762750		20030708
NZ 538052	A	20070928	NZ	2003-538052		20030708
ES 2287529	Т3	20071216	ES	2003-762750		20030708
NO 2004005082	A	20041227	NO	2004-5082		20041122
MX 2005000425	A	20050722	MX	2005-425		20050107
ZA 2005001081	A	20070425	ZA	2005-1081		20050207
US 20050171149	A1	20050804	US	2005-520078		20050404
PRIORITY APPLN. INFO.:			FR	2002-8570	A	20020708
			WO	2003-FR2128	W	20030708

OTHER SOURCE(S): MARPAT 140:76896

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- * STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT *
- Title compds. I [wherein X1 = halo, R1, G1R1; X2 = H, thionitroso, OH, AB alkylcarbonyloxy, alkyloxy, SH, alkylthio, alkylcarbonylthio or X2 = 0 or S that forms a 2-phenyl-4H-1-benzopyran-4-one with the carbon-3 of the propene chain; X3 = R3, G3R3; X4 = halo, thionitroso, R4, G4R4; X5 = R5, G5R5; X6 = O, NH and derivs.; R1, R3, R4, R5 = independently H, (un)substituted alkyl; G1, G3, G4, G5 = independently O or S; with at least one of X1, X3, X4, or X5 of formula GR and one of the R1, R3, R4, or R5 is a substituted radical, and that radical form a cycle, or is associated with a group G; their optical and geometrical isomers, racemates, tautomers, salts, hydrates and mixts.; with the exclusion of certain compds.] were prepared as peroxisome proliferator-activated receptors- α (PPAR α) agonists and as antioxidants for treating cerebral ischemia and related diseases. For example, II was prepared by mixed-Aldol condensation of ketone III with 4-hydroxy-3,5ditertbutylbenzaldehyde in the presence of ethanol/HCl. In an antioxidant test, selected I (10-3 M) diminished the formation of oxidation product of LDL by AAPH by Selected I were PPARa agonists, showing induced luciferase activity via PPAR α /Gal4 transactivation with a factor of induction ranging from 10 to 60, 5-50 and 3-35 at 100 μM , 30 μM , and 10 μM resp. I and their compns. are useful for treating cardiovascular diseases, syndrome X, restenosis, disbetes, obesity, hypertension, inflammatory diseases, cancers or neoplasms (benign or malignant tumors), neurodegenerative diseases, dermatol. and the disorders related to the oxydative stress, for preventing and treating aging, and in particular cutaneous aging.

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639664-19-0F 639864-20-2P 639864-21-4P 639864-21-4P 639864-22-5P 639864-30-5P 639864-30-5P 639864-31-6P 639864-31-6P 639864-31-4P 639864-31-6P 639864-31-8P 639864-39-4P 639861-40-7P 639864-31-8P 639864-31-9P Rs: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
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639864-16-7P 639864-17-8P 639864-18-9P

 $(\mbox{\sc PPAR}\alpha$ agonist; preparation of diphenylpropenones as PPAR agonists for treating ischemia)

RN 639864-16-7 HCAPLUS

CN Propanoic acid, 2-[3-(1,1-dimethylethyl)-2-hydroxy-5-[3-(2-hydroxyphenyl)-3-oxo-1-propen-1-yl]phenoxy]-2-methyl- (CA INDEX NAME)

- RN 639864-17-8 HCAPLUS
- CN Propanoic acid, 2-[3-(1,1-dimethylethyl)-2-hydroxy-5-[3-(2-hydroxyphenyl)-3-oxo-1-propen-1-yl]phenoxy]-2-methyl-, 1-methylethyl ester (CA INDEX NAME)

- RN 639864-18-9 HCAPLUS
- CN Propanoic acid, 2-[5-[3-(4-chloro-2-hydroxyphenyl)-3-oxo-1-propen-1-yl]-3-(1,1-dimethylethyl)-2-hydroxyphenoxy]-2-methyl- (CA INDEX NAME)

- RN 639864-19-0 HCAPLUS
- CN Propanoic acid, 2-[5-[3-(4-chloro-2-hydroxyphenyl)-3-oxo-1-propen-1-yl]-3-(1,1-dimethylethyl)-2-hydroxyphenoxyl-2-methyl-, 1-methylethyl ester (CA INDEX NAME)

- RN 639864-20-3 HCAPLUS
- CN Benzeneacetic acid, 3-(1,1-dimethylethyl)-2-hydroxy-5-[3-(2-hydroxyphenyl)-3-oxo-1-propen-1-yl]-α, α-dimethyl- (CA INDEX NAME)

- RN 639864-21-4 HCAPLUS
- CN Benzeneacetic acid, 3-(1,1-dimethylethyl)-2-hydroxy-5-[3-(2-hydroxyphenyl)-3-oxo-1-propen-1-yl]-a,a-dimethyl-, 1-methylethyl ester (CA INDEX NAME)

$$\bigcap_{h=0}^{OH} CH \longrightarrow CH \longrightarrow \bigcap_{h=0}^{OH} CH$$

- RN 639864-22-5 HCAPLUS
- CN Benzeneacetic acid, 5-[3-(4-chloro-2-hydroxyphenyl)-3-oxo-1-propen-1-yl]-3-(1,1-dimethylethyl)-2-hydroxy- α , α -dimethyl- (CA INDEX NAME)

- RN 639864-23-6 HCAPLUS
- N Benzeneacetic acid, 5-[3-(4-chloro-2-hydroxyphenyl)-3-oxo-1-propen-1-yl]-3-(1,1-dimethylethyl)-2-hydroxy-α,α-dimethyl-, 1-methylethyl ester (CA INDEX NAME)

RN 639864-30-5 HCAPLUS

CN Propanoic acid, 2-[5-[3-(4-chloro-2-hydroxypheny1)-3-oxo-1-propen-1-y1]-2,3-dihydroxyphenoxy]-2-methy1- (CA INDEX NAME)

RN 639864-31-6 HCAPLUS

CN Propanoic acid, 2-[5-[3-(4-chloro-2-hydroxyphenyl)-3-oxo-1-propen-1-yl]2,3-dihydroxyphenoxy]-2-methyl-, 1-methylethyl ester (CA INDEX NAME)

RN 639864-38-3 HCAPLUS

CN Propanoic acid, 2-[3-[3-(2-hydroxyphenyl)-3-oxo-1-propen-1-yl]phenoxy]-2-methyl- (CA INDEX NAME)

RN 639864-39-4 HCAPLUS

CN Propanoic acid, 2-[3-[3-(2-hydroxypheny1)-3-oxo-1-propen-1-y1]phenoxy]-2methyl-, 1-methylethyl ester (CA INDEX NAME)

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RN 639864-40-7 HCAPLUS

CN Propanoic acid, 2-[[4-[3-(2-hydroxypheny1)-3-oxo-1-propen-1-y1]pheny1]thio]-2-methy1- (CA INDEX NAME)

RN 639864-41-8 HCAPLUS

CN Propanoic acid, 2-[[4-[3-(2-hydroxypheny1)-3-oxo-1-propen-1yl]phenyl]thio]-2-methyl-, 1-methylethyl ester (CA INDEX NAME)

REFERENCE COUNT:

29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Serial#: 10/520,078 SEARCH HISTORY

	FILE 'REGI	STRY' ENTERED AT 11:39:25 ON 30 JUN 2009 ACT ZARREG19FA/A
L1		STR
L2	47768	SEA SSS FUL L1
		ACT ZARREG21SB/A
L3		STR
	(47768)SEA SSS FUL L3
L5		STR
L6	2679	SEA SUB=L4 SSS FUL L5
		THE THE PARTY AND ALL ALL ALL ON AN THE AREA
		LUS' ENTERED AT 11:44:16 ON 30 JUN 2009
L7		SEA SPE=ON ABB=ON PLU=ON L6
L8	191239	SEA SPE=ON ABB=ON PLU=ON (DIABETES/CT OR "DIABETES INSIPIDUS "/CT OR "DIABETES MELLITUS"/CT) OR ?DIABET?/BI
L9	74644	SEA SPE=ON ABB=ON PLU=ON ATHEROSCLEROSIS+OLD/CT OR ?ATHEROSC
	, 1011	LER?/BI
L10	187726	SEA SPE=ON ABB=ON PLU=ON OBESITY+NT/CT OR ?OBESIT?/BI OR
		?OBESE?/BI OR ((WEIGHT? OR WT)(5A)(LOSS OR GAIN OR REDUCTION
		OR MANAGEMENT))/BI
L11	3805	SEA SPE=ON ABB=ON PLU=ON L8 AND L9 AND L10
L12	5	SEA SPE=ON ABB=ON PLU=ON L7 AND L11
L13	24	SEA SPE=ON ABB=ON PLU=ON L7(L)L8
L14		SEA SPE=ON ABB=ON PLU=ON L7(L)L9
L15		SEA SPE=ON ABB=ON PLU=ON L7(L)L10
L16		SEA SPE=ON ABB=ON PLU=ON L13 OR L14 OR L15
L17		SEA SPE=ON ABB=ON PLU=ON L16 NOT L12
L18	16	SEA SPE=ON ABB=ON PLU=ON L17 AND (PRY<=2003 OR AY<=2003 OR
		PY<=2003 OR PD<=2003)
L19		SEA SPE=ON ABB=ON PLU=ON NAJIB J?/AU
L20	90	SEA SPE=ON ABB=ON PLU=ON CAUMONT-BERTRAND K?/AU OR CAUMONT
		K?/AU OR BERTRAND K?/AU

5 SEA SPE=ON ABB=ON PLU=ON L19 AND L20

3 SEA SPE=ON ABB=ON PLU=ON (L12 OR L18) AND (L19 OR L20) 7 SEA SPE=ON ABB=ON PLU=ON L21 OR L22

L21 L22

L23